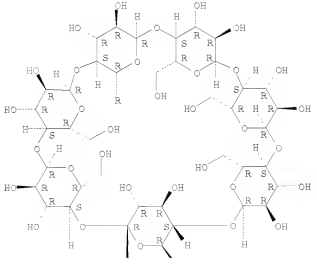
L17 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:566485 CAPLUS <<LOGINID::20090911>>
DOCUMENT NUMBER: 149:113163
TITLE: Physico-chemical investigation of asymmetrical peptidolipidyl-**cyclodextrins**
AUTHOR(S): Angelova, Angelina; Pajolles, Christophe; Hocquelet, Celine; Djedaini-Pilard, Florence; Lesieur, Sylviane; Bonnet, Veronique; Perly, Bruno; Lebas, Genevieve; Mauclaire, Laurent
CORPORATE SOURCE: CNRS UMR8612 Physico-chimie, Pharmacotechnie, Biopharmacie, Equipe Physico-chimie des Systemes Polyphases, Universite Paris Sud, Chatenay-Malabry, F-92290, Fr.
SOURCE: Journal of Colloid and Interface Science (2008), 322(1), 304-314
CODEN: JCISA5; ISSN: 0021-9797
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A new class of amphiphilic peptidolipidyl-**cyclodextrins** is reported. The derivs. are chiral due to the presence of an L-leucine in the spacer arm that links a saccharide moiety and a grafted, saturated hydrocarbon chain. Self-assembly properties of the peptidolipidyl-**cyclodextrins** are characterized by quasi-elastic light scattering, turbidity and UV-visible absorption measurements. NMR expts. give insight into the intermol. dipolar interactions as a function of temperature and concentration N-dodecyl- N α -(6I-amidosuccinyl-6I-deoxy-cyclomaltoheptaose)-L-leucine (1) is poorly soluble in aqueous media. N-dodecyl- N α -(6I-amidosuccinyl-6I-deoxy-2I,3I-di-O-methyl-hexakis-(2II-VII,3II-VII,6II-VII-tri-O-methyl)-cyclomaltoheptaose)-L-leucine (2) is found to be more soluble and self-assembles into stable supramol. colloidal aggregates with nanometric dimensions above a critical aggregation concentration (CAC). It has a propensity for solubilization of hydrophobic species revealing a micellar-like behavior, which is compared to that of the non-ionic detergent octyl glucoside. On the contrary, compound 1 ppts. in a crystalline phase beyond its water solubility limit, and it does not display any solubilizing capacity. The observed behavior corroborates at the mol. level with the NMR results.

IT **1035018-08-6P** **1035018-11-1P**
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(self-assembly and micellar solubilization of amphiphilic peptidolipidyl-**cyclodextrin**)
RN 1035018-08-6 CAPLUS
CN β-Cyclodextrin, 6A-deoxy-6A-[[4-[[(1S)-1-[(dodecylamino)carbonyl]-3-methylbutyl]amino]-1,4-dioxobutyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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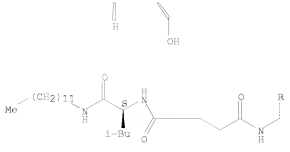

RN 1035018-11-1 CAPLUS
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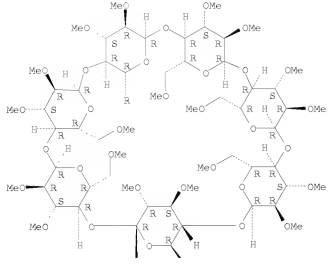
Absolute stereochemistry.

PAGE 1-A



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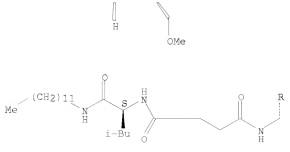


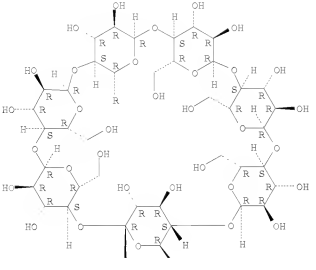
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(1 CITINGS)
REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:74777 CAPLUS <<LOGINID::20090911>>
DOCUMENT NUMBER: 148:396582
TITLE: Lipid lateral segregation driven by diacyl **cyclodextrin** interactions at the membrane surface. [Erratum to document cited in CA147:442329]
AUTHOR(S): Roux, Michel; Moutard, Stephane; Perly, Bruno; Djedaini-Pilard, Florence
CORPORATE SOURCE: Commissariat a l'Energie Atomique/Direction des Sciences du Vivant/Institut de Biologie et Technologies de Saclay, Service de Bioenergetique, Biologie Structurale et Mecanismes, URA Centre National de la Recherche Scientifique 2096, Gif-sur-Yvette, F-91191, Fr.
SOURCE: Biophysical Journal (2008), 94(2), 715
CODEN: BIOJAU; ISSN: 0006-3495
PUBLISHER: Biophysical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB On page 1620, in the sixth line of the Abstract, the volume number in the reference citation should be "82" not "8". Also, Reference 14 was incorrect; The correct refs. are provided.
IT **850342-08-4** **850342-12-0** **850342-14-2**
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(lipid lateral segregation driven by diacyl **cyclodextrin** interactions at the membrane surface (Erratum))
RN 850342-08-4 CAPLUS
CN β-Cyclodextrin, 6A-deoxy-6A-[[4-[[(1S)-3-(dodecylamino)-1-[(dodecylamino)carbonyl]-3-oxopropyl]amino]-1,4-dioxobutyl]amino]- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A



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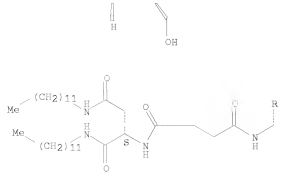
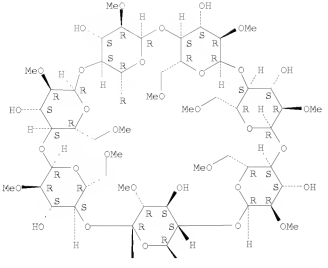


RN 850342-12-0 CAPLUS
CN β-Cyclodextrin, 6A-deoxy-6A-[[4-[[(1S)-3-(dodecylamino)-1-[(dodecylamino)carbonyl]-3-oxopropyl]amino]-1,4-dioxobutyl]amino]-2A,2B,2C,2D,2E,2F,2G,6B,6C,6D,6E,6F,6G-trideca-O-methyl- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A



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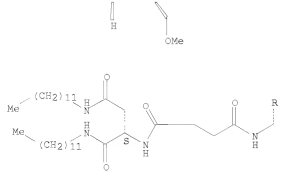
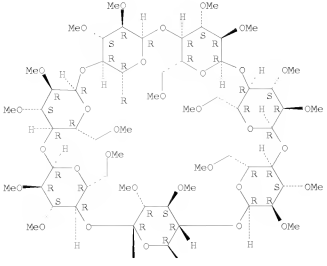


RN 850342-14-2 CAPLUS
CN β-Cyclodextrin, 6A-deoxy-6A-[[4-[[(1S)-3-(dodecylamino)-1-

[(dodecylamino)carbonyl]-3-oxopropyl]amino]-1,4-dioxobutyl]amino]-2A,2B,2C,2D,2E,2F,2G,3A,3B,3C,3D,3E,3F,3G,6B,6C,6D,6E,6F,6G-eicosa-O-methyl- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A



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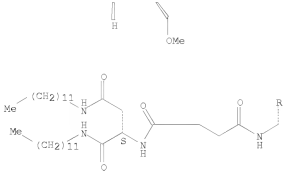


L17 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:946118 CAPLUS <<LOGINID::20090911>>

DOCUMENT NUMBER: 147:442329

TITLE: Lipid lateral segregation driven by diacyl **cyclodextrin** interactions at the membrane surface

AUTHOR(S): Roux, Michael; Moutard, Staphane; Perly, Bruno; Djedaini-Pilard, Florence

CORPORATE SOURCE: Commissariat a l'Energie Atomique/Direction des Sciences du Vivant/Institut de Biologie et Technologies de Saclay, Service de Bioenergetique, Biologie Structurale et Mecanismes, URA Centre National de la Recherche Scientifique 2096, Gif sur Yvette, F-91191, Fr.

SOURCE: Biophysical Journal (2007), 93(5), 1620-1629
CODEN: BIOJAU; ISSN: 0006-3495

PUBLISHER: Biophysical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB **Cyclodextrins** are hydrophilic mol. cages with a hydrophobic

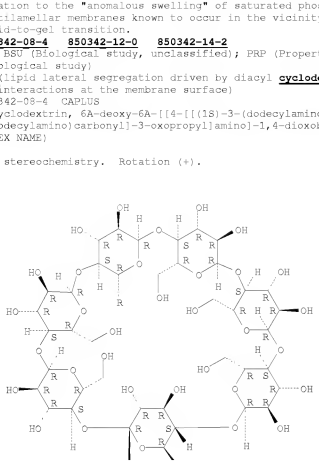
interior allowing the inclusion of water-insol. drugs. Amphiphilic **cyclodextrins** obtained by appending a hydrophobic anchor were designed to improve the cell targeting of the drug-containing cavities through their liposome transportation in the organism. After insertion in model membranes, they were found to induce a lateral phase separation into a pure lipid phase and a fluid **cyclodextrin**-rich phase (LCD) with reduced acyl chain order parameters, as observed with a derivative containing a cholesterol anchor. We present another class of amphiphilic **cyclodextrins** obtained by grafting aspartic acid esterified by two laurly chains on the oligosaccharide core via a succinyl spacer. The obtained dilauryl-β- **cyclodextrin** (βDLC) was inserted in chain perdeuterated dimyristoylphosphatidylcholine (DMPC-d54) membranes and studied by deuterium NMR (2H-NMR). A laterally segregated mixed phase was found to sequester three times more lipids than the cholesteryl derivative (.apprx.4-5 lipids per monomer of βDLC), and a quasipure LCD phase could be obtained with a 20% molar concentration of βDLC. When cooled below the main fluid-to-gel transition of DMPC-d54 the βDLC-rich phase stays fluid, coexisting with pure lipid in the gel state, and exhibits a sharp transition to a gel phase with frozen DMPC acyl chains at 12.5°. No lateral phase separation was observed with partially or fully methylated βDLC, confirming that the stability of the segregated LCD phase was governed through hydrogen-bond-mediated intermol. interactions between **cyclodextrin** headgroups at the membrane surface. As opposed to native βDLC, the methylated derivs. were found to strongly increase the orientational order of DMPC acyl chains as the temperature reaches the membrane fluid-to-gel transition. The results are discussed in relation to the "anomalous swelling" of saturated phosphatidylcholine multilamellar membranes known to occur in the vicinity of the main fluid-to-gel transition.

IT **850342-08-4** **850342-12-0** **850342-14-2**
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(lipid lateral segregation driven by diacyl **cyclodextrin** interactions at the membrane surface)

RN 850342-08-4 CAPLUS

CN β-Cyclodextrin, 6A-deoxy-6A-[[4-[[(1S)-3-(dodecylamino)-1-[(dodecylamino)carbonyl]-3-oxopropyl]amino]-1,4-dioxobutyl]amino]- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



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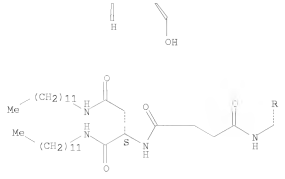
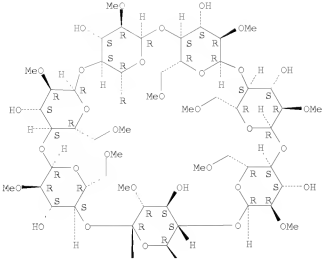


RN 850342-12-0 CAPLUS
CN β-Cyclodextrin, 6A-deoxy-6A-[[4-[[(1S)-3-(dodecylamino)-1-[(dodecylamino)carbonyl]-3-oxopropyl]amino]-1,4-dioxobutyl]amino]-2A,2B,2C,2D,2E,2F,2G,6B,6C,6D,6E,6F,6G-trideca-O-methyl- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A



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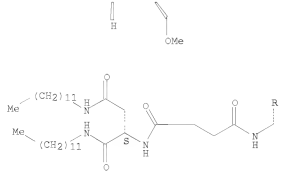

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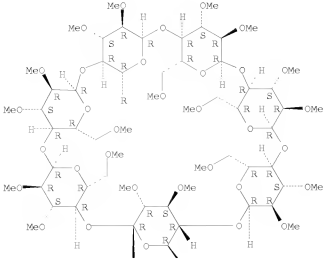
Absolute stereochemistry. Rotation (+).

PAGE 1-A



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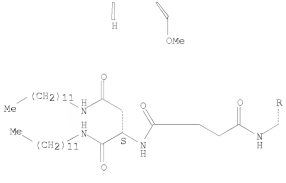

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L17 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:	2007:369558 CAPLUS <<LOGINID::20090911>>
DOCUMENT NUMBER:	148:379825
TITLE:	Oligosaccharide tagged β- **cyclodextrins**: synthesis and biological affinity towards Concanavalin A
AUTHOR(S):	Smiljanic, Nicolas; Moreau, Vincent; Yockot, Duplex; Garcia Fernandez, Jose Manuel; Djedaini-Pilard, Florence
CORPORATE SOURCE:	Laboratoire des Glucides UMR 6219, Universite de Picardie Jules Verne, Amiens, 80039, Fr.
SOURCE:	Journal of Inclusion Phenomena and Macrocyclic Chemistry (2007), 57(1-4), 9-14 CODEN: JIPCF5; ISSN: 1388-3127
PUBLISHER:	Springer
DOCUMENT TYPE:	Journal

LANGUAGE: English

AB An original synthetic route based on multi-glycosylation and selective protection-deprotection steps has been developed which allows a fast access to complex oligo-mannosides with both α-(1,3),α-(1,6) and α-(1,3),α-(1,4) cores. The later have been linked to modified β- **cyclodextrins** bearing spacing arms of varying chemical structure and length through peptidic-like coupling, leading to the formation of a range of oligo-mannosyl **cyclodextrin** conjugates. Complexation studies with sodium anthraquinone-2-sulfonate (ASANa) and sodium adamantane 1-carboxylate (ACNa) as guest mols. demonstrated that the β- **cyclodextrin** inclusion properties are preserved. Binding affinity studies using the mannose specific lectin Con A demonstrated the key role of the d. and tridimensional structure of the sugar ligand in recognition events.

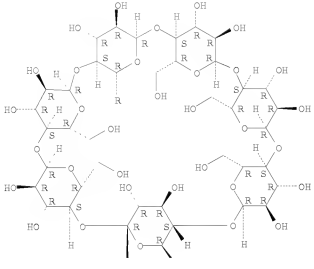
IT **1013938-44-7D**, Con A bound
RL: BSU (Biological study, unclassified); FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
(oligosaccharide tagged β- **cyclodextrins** and synthesis and biol. affinity towards Con A)

RN 1013938-44-7 CAPLUS

CN β-Cyclodextrin, 6A-deoxy-6A-[[4-[[4-[(O-α-D-mannopyranosyl-(1→3)-O-[α-D-mannopyranosyl-(1→4)]-β-D-mannopyranosyl)amino]-1-[[(O-α-D-mannopyranosyl-(1→3)-O-[α-D-mannopyranosyl-(1→4)]-β-D-mannopyranosyl)amino]carbonyl]-4-oxobutyl]amino]-1,4-dioxobutyl]amino]- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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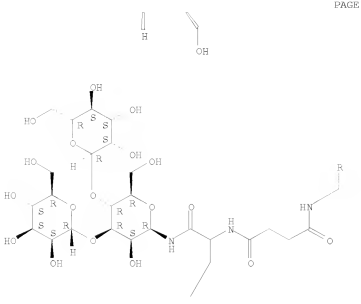

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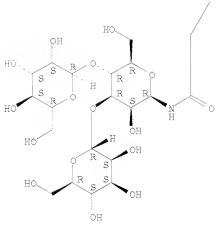


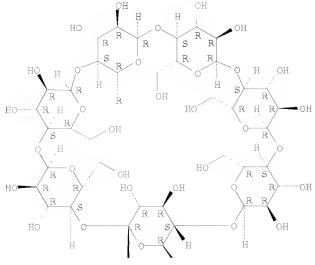
IT **1013938-45-8 1013938-52-7**
RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); FORM (Formation, nonpreparative); PROC (Process)
(oligosaccharide tagged **β- cyclodextrins** and synthesis and biol. affinity towards Con A)
RN 1013938-45-8 CAPLUS
CN **β**-Cyclodextrin, 6A-deoxy-6A-[[4-[[4-[(O-**α**-D-mannopyranosyl-(1→3)-O-[**α**-D-mannopyranosyl-(1→4)]-**β**-D-mannopyranosyl)amino]-1-[[(O-**α**-D-mannopyranosyl-(1→3)-O-[**α**-D-mannopyranosyl-(1→4)]-**β**-D-mannopyranosyl)amino]carbonyl]-4-oxobutyl]amino]-1,4-dioxobutyl]amino]-, compd. with sodium tricyclo[3.3.1.13,7]decane-1-carboxylate (1:1:1) (CA INDEX NAME)

CM 1

CRN 1013938-44-7
CMF C87 H144 N4 O68

Absolute stereochemistry.

PAGE 1-A



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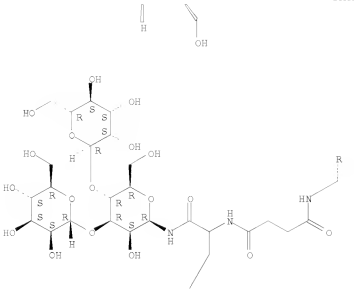

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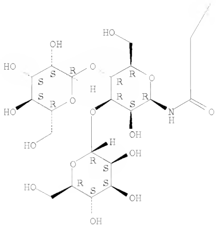

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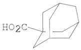
CRN 40242-32-8
CMF C11 H16 O2 . Na



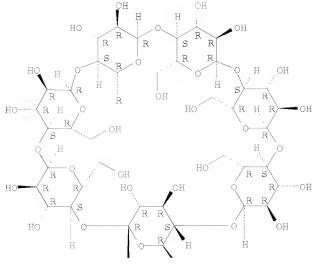
RN 1013938-52-7 CAPLUS
CN β-Cyclodextrin, 6A-deoxy-6A-[[4-[[4-[(O-α-D-mannopyranosyl-(1→3)-O-[α-D-mannopyranosyl-(1→4)]-β-D-mannopyranosyl)amino]-1-[[(O-α-D-mannopyranosyl-(1→3)-O-[α-D-mannopyranosyl-(1→4)]-β-D-mannopyranosyl)amino]carbonyl]-4-oxobutyl]amino]-1,4-dioxobutyl]amino]-, compd. with sodium 9,10-dihydro-9,10-dioxo-2-anthracenesulfonate (1:1:1) (CA INDEX NAME)

CM 1

CRN 1013938-44-7
CMF C87 H144 N4 O68

Absolute stereochemistry.

PAGE 1-A



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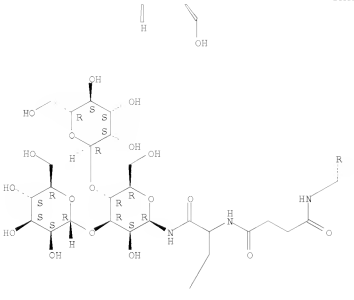

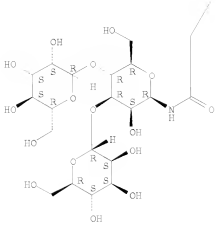

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CRN 131-08-8
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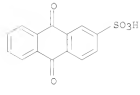

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REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2006:904991 CAPLUS <<LOGINID::20090911>>
DOCUMENT NUMBER: 145:433575
TITLE: Supramolecular control of oligosaccharide-protein interactions: switchable and tunable ligands for concanavalin A based on β- **cyclodextrin**
AUTHOR(S): Smiljanic, Nicolas; Moreau, Vincent; Yockot, Duplex; Benito, Juan M.; Garcia Fernandez, Jose M.; Djedaini-Pilard, Florence
CORPORATE SOURCE: Laboratoire des Glucides UMR6219, Universite Picardie Jules Verne, Amiens, 80039, Fr.
SOURCE: Angewandte Chemie, International Edition (2006), 45(33), 5665-5668
CODEN: ACIEF5; ISSN: 1433-7851
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 145:433575
AB The ins and outs of binding: supramol. control of carbohydrate-protein interactions has been achieved through the design of β-**cyclodextrin** (βCD) based conjugates whose conformation is dependent on a reversible self-inclusion process. The accessibility of glycoligands to the lectin binding site is then regulated by allosteric inclusion of effector/antagonist-like mols. in the βCD cavity.
IT **639464-25-8P** **912654-92-3P**
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation);

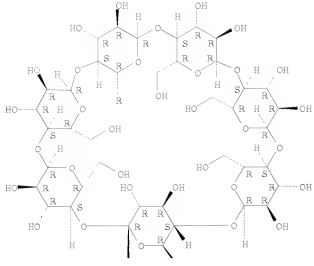
BIOL (Biological study); PREP (Preparation)
(switchable and tunable ligands for Con A based on **β**-**cyclodextrin**)

RN 639464-25-8 CAPLUS

CN **β**-Cyclodextrin, 6A-deoxy-6A-[[4-[[(1S)-1-[(4-hydroxyphenyl)methyl]-2-[(O-**α**-D-mannopyranosyl-(1→3)-O-[**α**-D-mannopyranosyl-(1→6)]-**β**-D-mannopyranosyl)amino]-2-oxoethyl]amino]-1,4-dioxobutyl]amino]- (9CI) (CA INDEX NAME)

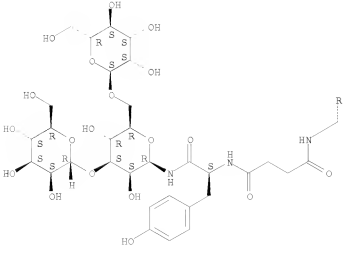
Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

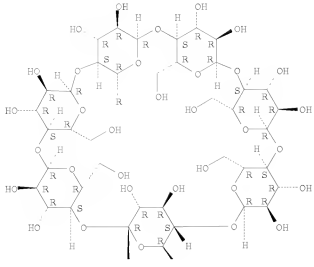
PAGE 3-A



RN 912654-92-3 CAPLUS
CN L-Glutamamide, N-[4-[(6A-deoxy-β-cyclodextrin-6A-yl)amino]-1,4-dioxobutyl]-L-tyrosyl-N3,N5-bis[O-α-D-mannopyranosyl-(1→3)-O-[α-D-mannopyranosyl-(1→6)]-β-D-mannopyranosyl]- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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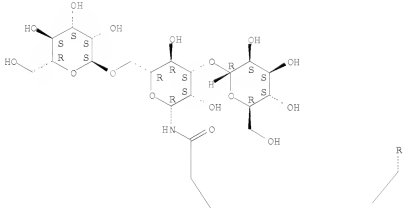
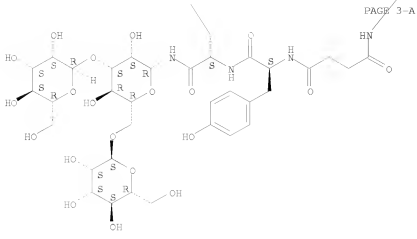




OS.CITING REF COUNT: 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS)
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:367931 CAPLUS <<LOGINID::20090911>>
DOCUMENT NUMBER: 142:411584
TITLE: Preparation of amphiphilic amino acid-containing **cyclodextrin** derivatives
INVENTOR(S): Perly, Bruno; Moutard, Stephane; Pilard, Florence
PATENT ASSIGNEE(S): Commissariat a l'Energie Atomique, Fr.; Universite de Picardie Jules Verne
SOURCE: Fr. Demande, 103 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2861396	A1	20050429	FR 2003-50736	20031024
WO 2005042590	A2	20050512	WO 2004-FR50519	20041021
WO 2005042590	A3	20050825		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1675876	A2	20060705	EP 2004-805762	20041021
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
JP 2007509218	T	20070412	JP 2006-536144	20041021
US 20070142324	A1	20070621	US 2006-576346	20061120
PRIORITY APPLN. INFO.:			FR 2003-50736 A	20031024
			WO 2004-FR50519 W	20041021

OTHER SOURCE(S): MARPAT 142:411584
AB Amphiphilic **cyclodextrin** derivs. I, wherein R1 is substituted amine; R2 is H, Me, 1-Pr, hydroxypropyl, sulfo-Bu ether; R3 is H, R2 except when R2 is hydroxypropyl; R4 is OH, R1, R2 except when R2 is hydroxypropyl; n is 5-7, were prepared Thus, amino acid-containing **cyclodextrin** II was prepared
IT **850342-14-2P**
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic

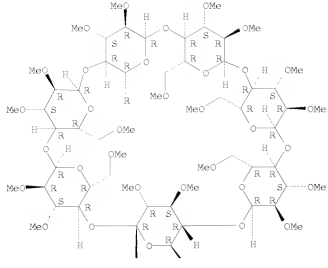
preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of amphiphilic amino acid containing **cyclodextrin** derivs.)

RN 850342-14-2 CAPLUS

CN β-Cyclodextrin, 6A-deoxy-6A-[[4-[[(1S)-3-(dodecylamino)-1-[(dodecylamino)carbonyl]-3-oxopropyl]amino]-1,4-dioxobutyl]amino]-2A,2B,2C,2D,2E,2F,2G,3A,3B,3C,3D,3E,3F,3G,6B,6C,6D,6E,6F,6G-eicosa-O-methyl- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A



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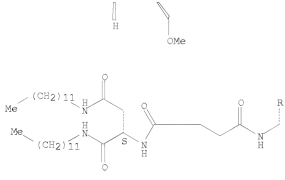


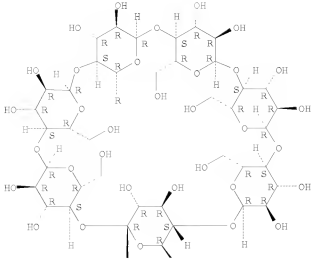
IT **850342-08-4P** **850342-10-8P** **850342-12-0P**
850342-13-1P **850342-19-7P** **850342-20-0P**
850342-22-2P **850342-24-4P**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of amphiphilic amino acid containing **cyclodextrin** derivs.)

RN 850342-08-4 CAPLUS

CN β-Cyclodextrin, 6A-deoxy-6A-[[4-[[(1S)-3-(dodecylamino)-1-[(dodecylamino)carbonyl]-3-oxopropyl]amino]-1,4-dioxobutyl]amino]- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A



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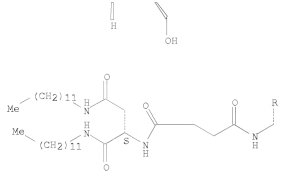
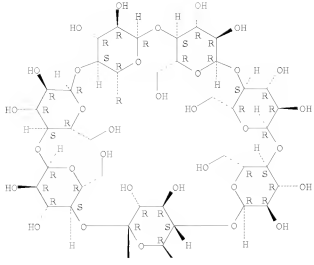


RN 850342-10-8 CAPLUS
CN β-Cyclodextrin, 6A-deoxy-6A-[[4-[[(1S)-4-(dodecylamino)-1-[(dodecylamino)carbonyl]-4-oxobutyl]amino]-1,4-dioxobutyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A



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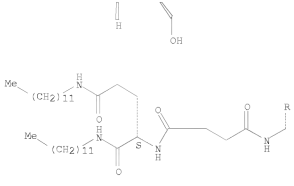
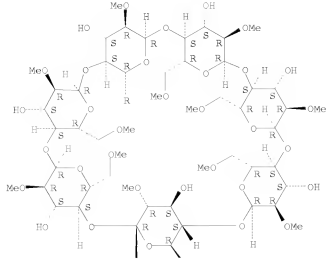


RN 850342-12-0 CAPLUS
CN β-Cyclodextrin, 6A-deoxy-6A-[[4-[[(1S)-3-(dodecylamino)-1-[(dodecylamino)carbonyl]-3-oxopropyl]amino]-1,4-dioxobutyl]amino]-2A,2B,2C,2D,2E,2F,2G,6S,6C,6D,6E,6F,6G-trideca-O-methyl- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A



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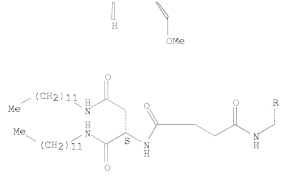
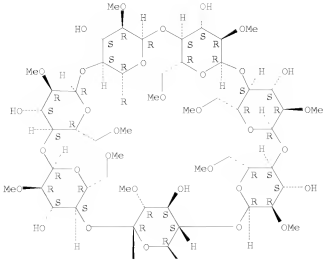


RN 850342-13-1 CAPLUS

CN β-Cyclodextrin, 6A-deoxy-6A-[[4-[[(1S)-4-(dodecylamino)-1-[(dodecylamino)carbonyl]-4-oxobutyl]amino]-1,4-dioxobutyl]amino]-2A,2B,2C,2D,2E,2F,2G,6B,6C,6D,6E,6F,6G-trideca-O-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A



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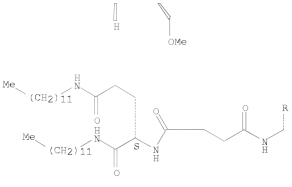
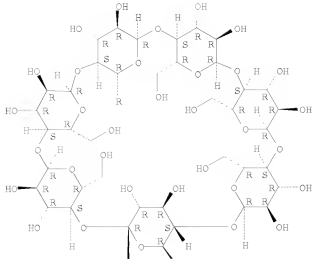


RN 850342-19-7 CAPLUS
CN β-Cyclodextrin, 6A-deoxy-6A-[[4-[[(1S)-1-[(dodecylamino)carbonyl]-3-(hexadecylamino)-3-oxopropyl]amino]-1,4-dioxobutyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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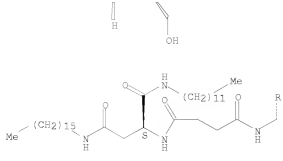
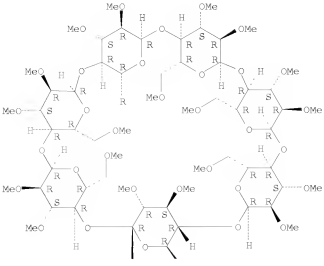


RN 850342-20-0 CAPLUS
CN β-Cyclodextrin, 6A-deoxy-6A-[[4-[[(1S)-4-(dodecylamino)-1-[(dodecylamino)carbonyl]-4-oxobutyl]amino]-1,4-dioxobutyl]amino]-2A,2B,2C,2D,2E,2F,2G,3A,3B,3C,3D,3E,3F,3G,6B,6C,6D,6E,6F,6G-eicosa-O-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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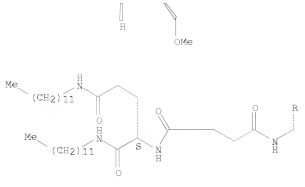
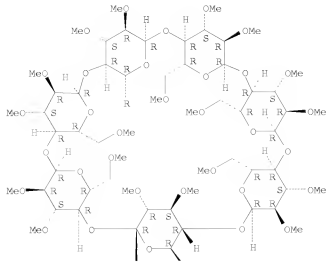


RN 850342-22-2 CAPLUS

CN β-Cyclodextrin, 6A-deoxy-6A-[[4-[[(1S)-3-(hexadecylamino)-1-[(hexadecylamino)carbonyl]-3-oxopropyl]amino]-1,4-dioxobutyl]amino]-2A,2B,2C,2D,2E,2F,2G,3A,3B,3C,3D,3E,3F,3G,6B,6C,6D,6E,6F,6G-eicosa-O-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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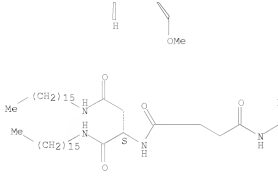
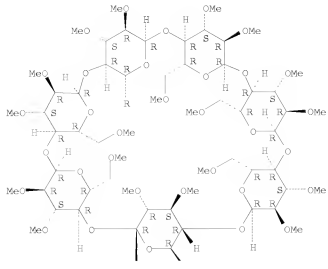


RN 850342-24-4 CAPLUS
CN β-Cyclodextrin, 6A-deoxy-6A-[[4-[[(1S)-1-[(hexadecylamino)carbonyl]-3-methylbutyl]amino]-1,4-dioxobutyl]amino]-2A,2B,2C,2D,2E,2F,2G,3A,3B,3C,3D,3E,3F,3G,6B,6C,6D,6E,6F,6G-eicosa-O-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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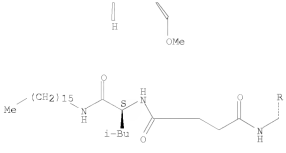


OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:491950 CAPLUS <<LOGINID::20090911>>
DOCUMENT NUMBER: 140:59843
TITLE: Synthesis and characterization of mannosyl mimetic derivatives based on a β- **cyclodextrin** core
AUTHOR(S): Yockot, Duplex; Moreau, Vincent; Demailly, Gilles; Djedaini-Pilard, Florence
CORPORATE SOURCE: Laboratoire des glucides, Universite Picardie Jules Verne, Amiens, 80039, Fr.
SOURCE: Organic & Biomolecular Chemistry (2003), 1(10), 1810-1818
CODEN: OBCRAK; ISSN: 1477-0520
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 140:59843
AB The synthesis of branched **β- cyclodextrins** substituted with mannosyl mimetic derivs. at one primary hydroxy group is described. It was shown that the self-inclusion phenomenon observed for the target compds. in water did not preclude the inclusion properties of the **cyclodextrin** moiety.
IT **639464-24-7P** **639464-25-8P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

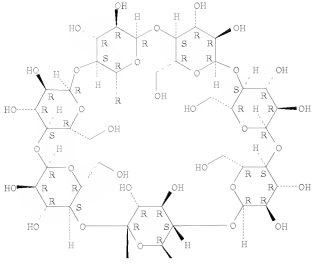
(synthesis, water solubility, and characterization of mannosyl mimetic derivs. based on bcyclodextrin core)

RN 639464-24-7 CAPLUS

CN β-Cyclodextrin, 6A-deoxy-6A-[[4-[[(1S)-1-[(4-hydroxyphenyl)methyl]-2-[β-D-mannopyranosylamino)-2-oxoethyl]amino]-1,4-dioxobutyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A



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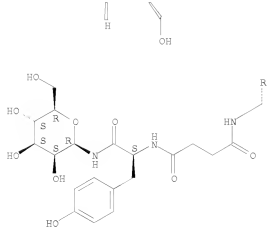
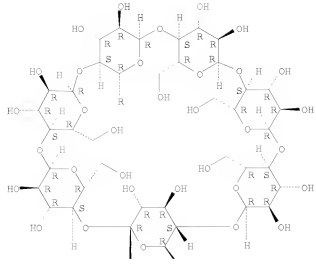


RN 639464-25-8 CAPLUS

CN β-Cyclodextrin, 6A-deoxy-6A-[[4-[[(1S)-1-[(4-hydroxyphenyl)methyl]-2-[(O-α-D-mannopyranosyl-(1→3)-O-[α-D-mannopyranosyl-(1→6)]-β-D-mannopyranosyl]amino]-2-oxoethyl]amino]-1,4-dioxobutyl]amino]- (9CI) (CA INDEX NAME)

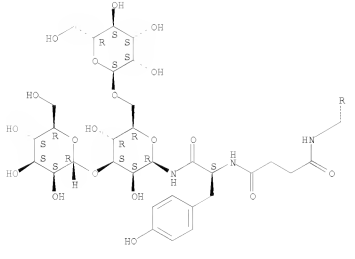
Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

PAGE 3-A



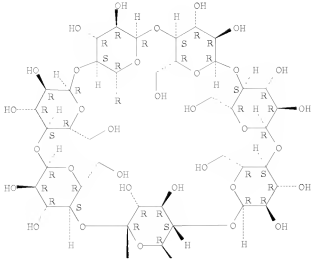
IT **639464-32-7P** **639464-33-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis, water solubility, and characterization of mannosyl mimetic derivs. based on bcyclodextrin core)

RN 639464-32-7 CAPLUS

CN β-Cyclodextrin, 6A-deoxy-6A-[[4-[[(1S)-1-[(4-hydroxyphenyl)methyl]-2-oxo-2-[(2,3,4,6-tetra-O-benzoyl-β-D-mannopyranosyl)amino]ethyl]amino]-1,4-dioxobutyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A



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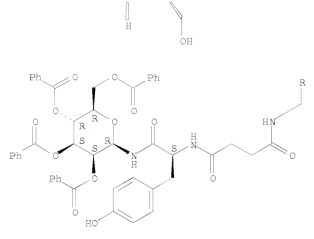
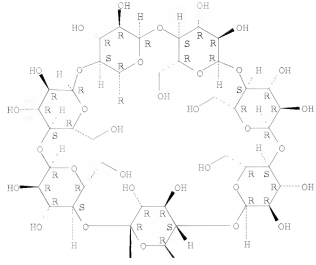


RN 639464-33-8 CAPLUS

CN β-Cyclodextrin, 6A-deoxy-6A-[[4-[[(1S)-1-[(4-hydroxyphenyl)methyl]-2-oxo-2-[(O-2,3,4,6-tetra-O-acetyl-α-D-mannopyranosyl-(1→3)-O-[2,3,4,6-tetra-O-acetyl-α-D-mannopyranosyl-(1→6)]-2,4-di-O-benzoyl-β-D-mannopyranosyl)amino]ethyl]amino]-1,4-dioxobutyl]amino]- (9CI) (CA INDEX NAME)

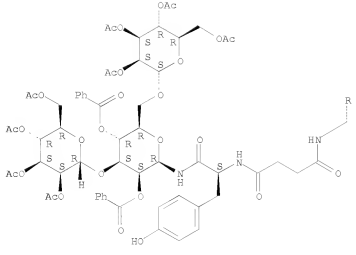
Absolute stereochemistry. Rotation (+).

PAGE 1-A



PAGE 2-A

PAGE 3-A



OS.CITING REF COUNT: 12 THERE ARE 12 CAPLUS RECORDS THAT CITE THIS RECORD (13 CITINGS)
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2000:842866 CAPLUS <<LOGINID::20090911>>
DOCUMENT NUMBER: 134:193702
TITLE: β- **cyclodextrin** for presentation of

bioactive peptides to molecular recognition

AUTHOR(S): Schaschke, Norbert; Fiori, Stella; Musiol, Hans-Jurgen; Assfalg-Machleidt, Irmgard; Machleidt, Werner; Escrieut, Chantal; Fourmy, Daniel; Muller, Gerhard; Moroder, Luis

CORPORATE SOURCE: Max-Planck-Institut fur Biochemie, Martinsried, D-82152, Germany

SOURCE: Peptides: Biology and Chemistry, Proceedings of the Chinese Peptide Symposium, 5th, Lanzhou, China, July 14-17, 1998 (2000), Meeting Date 1998, 202-209. Editor(s): Hu, Xiao-Yu; Wang, Rui; Tam, James P. Kluwer Academic Publishers: Dordrecht, Neth. CODEN: 69AQX6

DOCUMENT TYPE: Conference

LANGUAGE: English

AB A symposium report. β- **Cyclodextrin**/gastrin peptide conjugates were prepared and their binding affinities to the CCK-β/gastrin receptor were determined

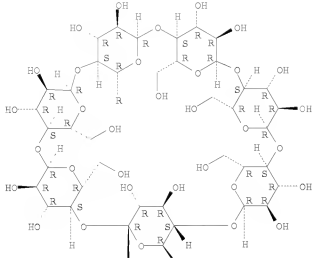
IT **211360-86-0P** **211360-87-1P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(β- **cyclodextrin** for presentation of bioactive peptides to mol. recognition)

RN 211360-86-0 CAPLUS

CN L-Phenylalaninamide, N-[4-[(6A-deoxy-β-cyclodextrin-6A-yl)amino]-1,4-dioxobutyl]-L-tryptophyl-L-norleucyl-L-α-aspartyl- (9CI) (CA INDEX NAME)

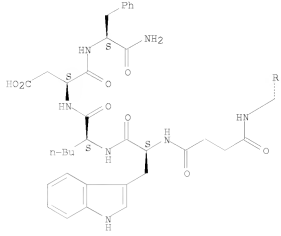
Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

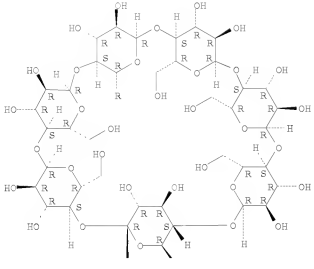
PAGE 3-A



RN 211360-87-1 CAPLUS
CN L-Phenylalaninamide, N-[4-[(6A-deoxy-β-cyclodextrin-6A-yl)amino]-1,4-dioxobutyl]-L-alanyl-L-tyrosylglycyl-L-tryptophyl-L-norleucyl-L-α-asparty1- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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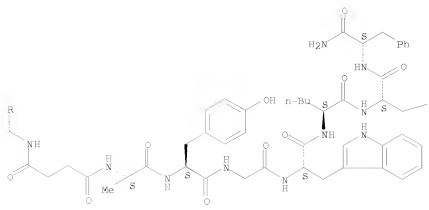


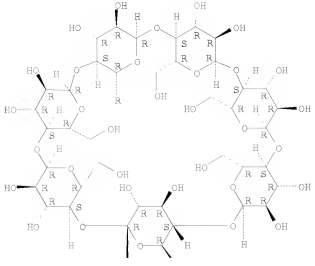
PAGE 3-B

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1999:396543 CAPLUS <<LOGINID::20090911>>
DOCUMENT NUMBER: 131:214547
TITLE: **Cyclodextrin** as carrier of bioactive peptides
AUTHOR(S): Schaschke, Norbert; Fiori, Stella; Fourmy, Daniel; Moroder, Luis
CORPORATE SOURCE: Max-Planck-Institut fur Biochemie, Martinsried, 82152, Germany
SOURCE: Peptides: Frontiers of Peptide Science, Proceedings of the American Peptide Symposium, 15th, Nashville, June 14-19, 1997 (1999), Meeting Date 1997, 315-316. Editor(s): Tam, James P.; Kaumaya, Pravin T. P. Kluwer: Dordrecht, Neth.
CODEN: 67UCAR
DOCUMENT TYPE: Conference
LANGUAGE: English
AB A symposium report. Tetra- and heptagastrin peptide/β-**cyclodextrin** conjugates were prepared and their binding affinities to the CCK-β/gastrin receptor were determined
IT **211360-86-0P** **211360-87-1P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and **cyclodextrin**-supported bioactive peptides)
RN 211360-86-0 CAPLUS
CN L-Phenylalaninamide, N-[4-[(6A-deoxy-β-cyclodextrin-6A-yl)amino]-1,4-dioxobutyl]-L-tryptophyl-L-norleucyl-L-α-aspartyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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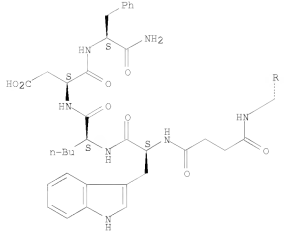
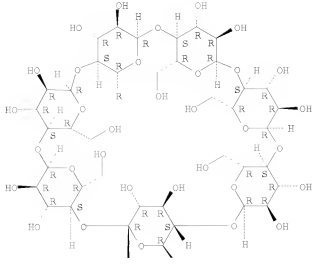


RN 211360-87-1 CAPLUS
CN L-Phenylalaninamide, N-[4-[(6A-deoxy-β-cyclodextrin-6A-yl)amino]-1,4-dioxobutyl]-L-alanyl-L-tyrosylglycyl-L-tryptophyl-L-norleucyl-L-α-aspartyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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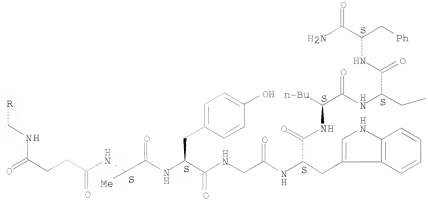
PAGE 3-A



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REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1998:431175 CAPLUS <<LOGINID::20090911>>
DOCUMENT NUMBER: 129:180027
ORIGINAL REFERENCE NO.: 129:36481a,36484a
TITLE: **Cyclodextrin** as Carrier of Peptide Hormones. Conformational and Biological Properties of β-**Cyclodextrin**/Gastrin Constructs
AUTHOR(S): Schaschke, Norbert; Fiori, Stella; Weyher, Elisabeth; Escrieut, Chantal; Fourmy, Daniel; Mueller, Gerhard; Moroder, Luis
CORPORATE SOURCE: Max-Planck-Institut fuer Biochemie, Martinsried, 82152, Germany
SOURCE: Journal of the American Chemical Society (1998), 120(28), 7030-7038
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

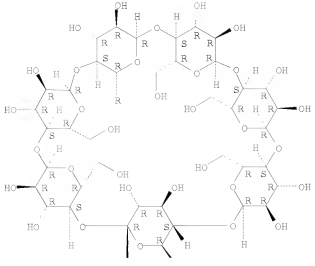
AB The C-terminal tetrapeptide amide of gastrin, the shortest sequence of this gastrointestinal hormone capable of exhibiting all the biol. properties even though at reduced potency, and the related heptapeptide amide were covalently linked to mono-(6-succinylamino-6-deoxy)-β-**cyclodextrin** to analyze the effect of the bulky cyclic carbohydrate moiety on recognition of the peptides by the G-protein-coupled CCK-B/gastrin receptor and on their signal transduction potencies. With the four-carbon succinyl spacer and particularly with the addnl. tripeptide spacer in the heptapeptide/β- **cyclodextrin** conjugate, full recognition by the receptor was obtained with binding affinities identical to those of the unconjugated tetrapeptide and with a potency comparable to that of full agonists. Docking of this conjugate onto a structure of the human CCK-B receptor derived by homol. modeling indicates sufficient free space of the peptide moiety for intermol. interaction at the putative gastrin binding site, whereby addnl. interactions of the **cyclodextrin** with the receptor surface apparently suffice for stabilizing the complex and thus for triggering the full hormonal message. The host/guest complexation of the peptide moiety by the β- **cyclodextrin** which seems to occur at least in the case of the tetrapeptide conjugate does not suffice in its strength for competing with the receptor recognition. However, multiple presentation of the tetragastrin by its covalent linkage to the heptakis-(6-succinylamino-6-deoxy)-β- **cyclodextrin** leads to peptide/peptide and/or peptide/**cyclodextrin** collapses with strong interferences in the receptor recognition process. Retention of full agonism by suitably designed monoconjugates of bioactive peptides with **cyclodextrins** suggests a highly promising approach for targeting host/guest complexed or covalently bound cytotoxic drugs to specific tumor cells for receptor-mediated internalization.

IT **211360-86-0P** **211360-87-1P**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(conformational and biol. properties of β- **cyclodextrin** /gastrin constructs)

RN 211360-86-0 CAPLUS
CN L-Phenylalaninamide, N-[4-[(6A-deoxy-β-cyclodextrin-6A-yl)amino]-1,4-dioxobutyl]-L-tryptophyl-L-norleucyl-L-α-aspartyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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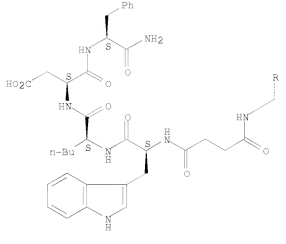
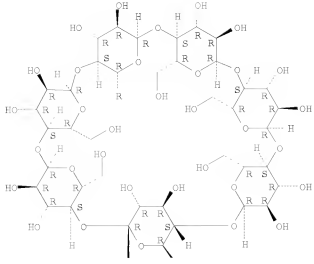


RN 211360-87-1 CAPLUS
CN L-Phenylalaninamide, N-[4-[(6A-deoxy-β-cyclodextrin-6A-yl)amino]-1,4-dioxobutyl]-L-alanyl-L-tyrosylglycyl-L-tryptophyl-L-norleucyl-L-α-aspartyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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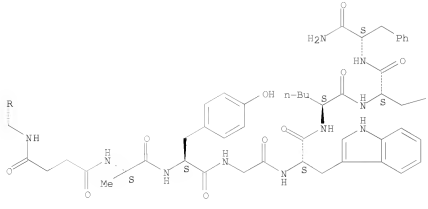

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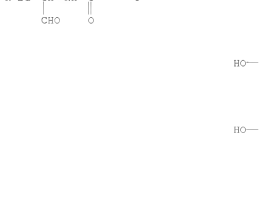
OS.CITING REF COUNT: 38 THERE ARE 38 CAPLUS RECORDS THAT CITE THIS RECORD (38 CITINGS)
REFERENCE COUNT: 63 THERE ARE 63 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

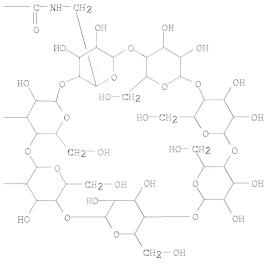
L17 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1996:491249 CAPLUS <<LOGINID::20090911>>
DOCUMENT NUMBER: 125:215415
ORIGINAL REFERENCE NO.: 125:40139a
TITLE: **Cyclodextrins** as templates for the presentation of protease inhibitors
AUTHOR(S): Schmoeke, N.; Musiol, H.-J.; Assfalg-Machleidt, I.; Machleidt, W.; Rudolph-Boehner, S.; Moroder, L.
CORPORATE SOURCE: Max-Planck-Institut fuer Biochemie, AG Bioorganische Chemie, Am Klopferspitz 18A, Martinsried, 82152, Germany
SOURCE: FEBS Letters (1996), 391(3), 297-301
CODEN: FEBLAL; ISSN: 0014-5793
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 125:215415

AB Mono(6-succinylamido-6-deoxy)-β- **cyclodextrin** was synthesized by classical carbohydrate chemical and used as a template mono-functionalized with the linear, fully flexible 4C-spacer carboxylate for covalent linkage of the calpain inhibitor leucyl-leucyl-norleucinal. Spectroscopic analyses of the conjugate do not support a self-inclusion of part of the hydrophobic peptide tail, but confirm its intra-or intermol. interaction with the template moiety that leads to full water solubility The inhibitory potency of the β- **cyclodextrin**/peptide aldehyde construct was compared with that of the parent Ac-Leu-Leu-Nle-H against cathepsin B and calpain. Despite the large size of the template the inhibition of cathepsin B was only slightly reduced in full agreement with the X-ray structure of this enzyme which shows full accessibility of the S-subsites. For this enzyme the 4C-spacer is apparently sufficient to guarantee optimal interaction of the peptide tail with the binding cleft. Conversely, for μ-calpain a significantly decreased inhibitory potency was obtained with the conjugate suggesting steric interference of the template in the binding process. These results show that the beneficial properties of the **cyclodextrin** template can be retained in conjugates with bioactive peptides if attention is paid to optimize in each case the size and nature of the spacer for optimal recognition of the grafted biomol.

IT **181487-21-8P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of **cyclodextrin** conjugates for presentation of protease inhibitors)

RN 181487-21-8 CAPLUS
CN L-Norleucine, N-[N-[N-[4-[(6A-deoxy-β-cyclodextrin-6A-yl)amino]-1,4-dioxobutyl]-L-leucyl]-L-leucyl]- (9CI) (CA INDEX NAME)





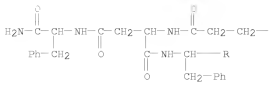
OS.CITING REF COUNT: 17 THERE ARE 17 CAPLUS RECORDS THAT CITE THIS RECORD (17 CITINGS)

L17 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1993:574166 CAPLUS <<LOGINID::20090911>>
DOCUMENT NUMBER: 119:174166
ORIGINAL REFERENCE NO.: 119:30919a,30922a
TITLE: Preparation of anti-retroviral **cyclodextrin** polysulfate esters
INVENTOR(S): Moriya, Tamon; Kurita, Hiroki; Otake, Toru; Mori, Haruyo; Morimoto, Motoko
PATENT ASSIGNEE(S): Tanabe Seiyaku Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

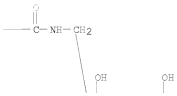
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04309502	A	19921102	JP 1991-164079	19910408

PRIORITY APPLN. INFO.: JP 1991-164079 19910408
OTHER SOURCE(S): MARPAT 119:174166
AB The title esters contain ≥1 glycosyl unit having deoxyamino group on C-6 position which is derived from amino acids, and multiple sulfate ester groups or salts thereof, and are prepared Heating mono[6-(N-α-benzyloxycarbonyltriptophyl)amino-6-deoxy]-β-**cyclodextrin** in pyridine (Py) while stirring with SO3-Py complex at 100° gave the desired polysulfate ester.
IT **150213-94-8P** **150213-95-9P** **150213-96-0P** **150319-89-4P** **150319-90-7P** **150319-91-8P**
RL: PREP (Preparation)
(anti-retroviral, manufacture of)
RN 150213-94-8 CAPLUS
CN β-Cyclodextrin, 6A-[[4-[[3-[[2-amino-2-oxo-1-(phenylmethyl)ethyl]amino]-1-[[[2-amino-2-oxo-1-(phenylmethyl)ethyl]amino]carbonyl]-3-oxopropyl]amino]-1,4-dioxobutyl]amino]-6A-deoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



PAGE 2-A

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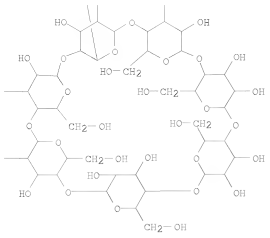
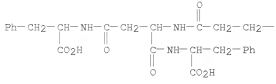


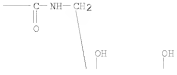
PAGE 3-A

RN 150213-95-9 CAPLUS
CN β-Cyclodextrin, 6A-[[4-[[3-[(1-carboxy-2-phenylethyl)amino]-1-[[(1-carboxy-2-phenylethyl)amino]carbonyl]-3-oxopropyl]amino]-1,4-dioxobutyl]amino]-6A-deoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



PAGE 2-A

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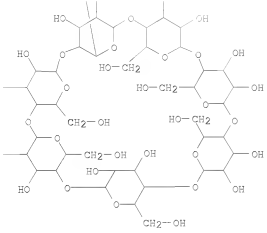
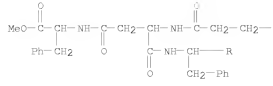
PAGE 2-B



RN 150213-96-0 CAPLUS
CN β-Cyclodextrin, 6A-deoxy-6A-[[4-[[3-[[2-methoxy-2-oxo-1-(phenylmethyl)ethyl]amino]-1-[[[2-methoxy-2-oxo-1-(phenylmethyl)ethyl]amino]carbonyl]-3-oxopropyl]amino]-1,4-

dioxobutyl]amino]- (9CI) (CA INDEX NAME)

PAGE 1-A



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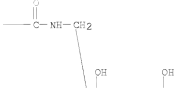

PAGE 2-A

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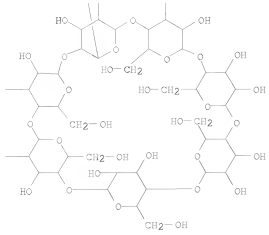
PAGE 2-B



PAGE 3-A

RN 150319-89-4 CAPLUS
CN **β**-Cyclode**x**trin, 6A-[[4-[[3-[[2-amino-2-o**x**o-1-{phenylmethyl}ethyl]amino]-1-[[[2-amino-2-o**x**o-1-{phenylmethyl}ethyl]amino]carbonyl]-3-o**x**opropyl]amino]-1,4-di**ox**obutyl]amino]-6A-deo**x**y-, nonadeca**k**is(hydrogen sulfate) (ester), nonadecapotas**s**ium salt (9CI) (CA INDEX NAME)

CM 1

CRN 150213-94-8
CMF C68 H100 N6 O40

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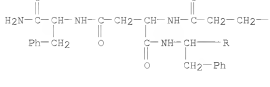

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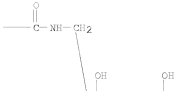

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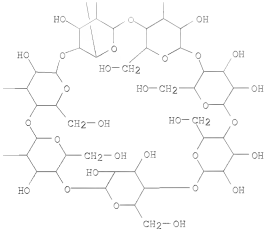


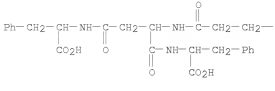
CM 2

CRN 7664-93-9
CMF H2 O4 S

RN 150319-90-7 CAPLUS
CN β-Cyclodextrin, 6A-[[4-[[3-[(1-carboxy-2-phenylethyl)amino]-1-[[(1-carboxy-2-phenylethyl)amino]carbonyl]-3-oxopropyl]amino]-1,4-dioxobutyl]amino]-6A-deoxy-, octadecakis(hydrogen sulfate) (ester), octadecapotassium salt (9CI) (CA INDEX NAME)

CM 1

CRN 150213-95-9
CMF C68 H98 N4 O42



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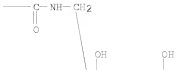

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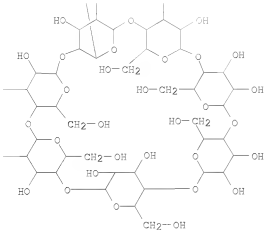


CM 2

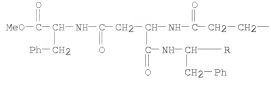
CRN 7664-93-9

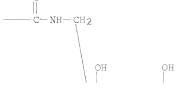
CMF H2 O4 S

RN 150319-91-8 CAPLUS
CN β-Cyclodextrin, 6A-deoxy-6A-[[4-[[3-[[2-methoxy-2-oxo-1-{phenylmethyl}ethyl]amino]-1-[[[2-methoxy-2-oxo-1-{phenylmethyl}ethyl]amino]carbonyl]-3-oxopropyl]amino]-1,4-dioxobutyl]amino]-, nonadecakis(hydrogen sulfate) (ester), nonadecapotassium salt (9CI) (CA INDEX NAME)

CM 1

CRN 150213-96-0
CMF C70 H102 N4 O42





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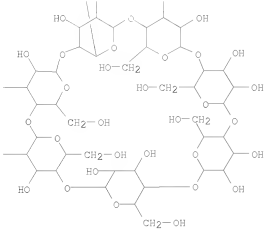

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CM 2

CRN 7664-93-9
CMF H2 O4 S